

| ENGINEER'S ESTIMATED ONSITE EARTHWO | ORK QUANTITIES |
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| 1. RAW CUT (INCLUDES AN ASSUMED ALLOWANCE 800 C.Y. FOR FOOTING, STORM DRAIN, AND UTILITY SPOILS) | 2,500 CU. YDS |
| OVEREXCAVATE UPPER 5 FEET UNDER THE NEW BUILDING AND BLEACHER ENVELOPE (21,000 S.F.) | 3,900 CU. YDS |
| 3. OVEREXCAVATE UPPER 1 FOOT (ASSUMED AVERAGE DEPTH) UNDER THE NEW HARDSCAPE AREAS (32,000 S.F.) | 1,200 CU. YDS |
| 4. TOTAL CUT | 7,600 CU. YDS |
| 5. RAW FILL | 90 CU. YDS |
| SHRINKAGE OF RAW FILL (NO. 5 ABOVE) USING AN ASSUMED 13% SHRINKAGE LOSS | 10 CU. YDS |
| 7. RECOMPACTION OF OVEREXCAVATED SOIL (NO. 2 AND 3 ABOVE) USING AN ASSUMED 13% SHRINKAGE LOSS | 5,800 CU. YDS |
| 8. TOTAL COMPACTED FILL | 5,900 CU. YDS |
| 9. ESTIMATED AMOUNT OF SOIL TO EXPORT FROM THE SITE | 1,700 CU. YDS |

NOTE: THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THEIR OWN EARTHWORK QUANTITIES FOR BIDDING PURPOSES. THE QUANTITIES SHOWN HEREON ARE THE ENGINEER'S ESTIMATE ONLY.

AVAILABLE FIRE FLOW TESTS

A. TWO FIRE FLOW TESTS MEASURED JANUARY 21, 2016 AT 9:15 AM BY THE CITY OF EL MONTE IN FRONT OF THE LOS ANGELES COUNTY FIRE DEPARTMENT INSPECTOR #341A ANGEL VALTIERRA (562)696-3915 WITH THE FOLLOWING RESULTS:

GPM

1,380 GPM

PUBLIC FIRE HYDRANT ONSITE TEST #1
THE FLOW HYDRANT IS LOCATED NORTH OF THE SCIENCE WING BUILDING G.

OBSERVED FLOW GPM OUTLET SIZE PITOT READING 35 PSI

RESIDUAL PRESSURE CALCULATED FLOW @ 20 PSI 1,680 GPM

PUBLIC FIRE HYDRANT OFFSITE TEST #2
THE FLOW HYDRANT IS LOCATED ON MILDRED STREET AT MEEKER AVENUE.

OBSERVED FLOW OUTLET SIZE PITOT READING RESIDUAL PRESSURE CALCULATED FLOW @ 20 PSI

GENERAL NOTES TO CONTRACTOR

1. THE CONTRACTOR SHALL PROVIDE FOR PROTECTION OF EXISTING UTILITY FACILITIES AND/OR INSTALLATION OF TEMPORARY UTILITY FACILITIES, AT ALL TIMES, INCLUDING THE GRADING OF OVEREXCAVATION AND RECOMPACTION OF LOOSE SOIL AND NEW HARDSCAPE SITE IMPROVEMENTS.

2. CONTRACTOR TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITH THE REQUIREMENT OF UPDATING THE AS-BUILTS TO ACCURATELY REFLECT THE LOCATION OF ALL UNDERGROUND UTILITIES.

3. PRIVATE ENGINEER'S NOTICE TO CONTRACTOR: THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING.

4. CONTRACTOR TO BE RESPONSIBLE FOR POTHOLING ALL EXISTING UTILITIES WHICH ARE TO REMAIN, TO BE RELOCATED, OR TO BE REMOVED SO AS TO GET A CLEAR UNDERSTANDING OF EXISTING CONDITIONS AND WHAT WILL BE REQUIRED TO ACHIEVE THE PROPOSED PROJECT DESIGN PRIOR TO COMMENCING ANY NEW SITE, GRADING, AND UTILITY CONSTRUCTION. CONTRACTOR TO BE RESPONSIBLE FOR RELOCATING ALL UTILITIES WHICH ARE IN CONFLICT WITH THE PROPOSED CONSTRUCTION INCLUDING THE OVEREXCAVATION AND RECOMPACTION OF LOOSE UNCOMPACTED SOIL. CONTRACTOR TO BE RESPONSIBLE FOR PAYMENT OF FEES TO THE UTILITY COMPANIES FOR THEIR SERVICES IN CONJUNCTION WITH THE RELOCATION OF THEIR LINES. CONTRACTOR TO BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITY SERVICES AT ALL TIME EXCEPT DURING PRE-APPROVED HOURS OF DISCONNECT DESCRIBED IN NOTE 7. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING IN PLACE ALL EXISTING ACTIVE UTILITIES, AS WELL AS THE NEWLY RELOCATED UTILITIES, DURING ALL PHASES OF CONSTRUCTION AND GRADING OF THIS PROJECT TO INCLUDE, BUT NOT BE LIMITED TO USING SHORING

5. CONTRACTOR SHALL PROVIDE A WRITTEN PROCEDURE AND SCHEDULE TO CLEAR AND PROTECT ALL UTILITY LINES FOR ADVANCED APPROVAL BY THE SCHOOL DISTRICT CONSTRUCTION MANAGER.

6. CONTRACTOR SHALL NOT COMMENCE ANY OFFSITE DEMOLITION OR CONSTRUCTION IN PUBLIC STREETS UNTIL THEY OBTAIN AN ENCROACHMENT PERMIT FROM THE CITY OF

7. A TWO WEEK NOTICE OF ANY EXISTING UTILITY DISCONNECT SHALL BE PROVIDED TO THE SCHOOL DISTRICT CONSTRUCTION MANAGER. UNLESS OTHERWISE APPROVED IN ADVANCE, THE DISCONNECT CAN ONLY BE PERFORMED DURING A 48 HOUR PERIOD STARTING EARLY SATURDAY MORNING SO AS TO BE FULLY OPERATIONAL EARLY

MONDAY MORNING. 8. CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITY PROPOSED POINTS OF CONNECTION AND ALL UTILITY CONFLICTS WITH PROPOSED PIPING TO VERIFY LOCATION, SIZE. ELEVATION AND TYPE OF PIPE MATERIAL PRIOR TO INSTALLING ANY NEW UTILITY OR STORM DRAIN PIPE IN ORDER TO RESOLVE ANY AND ALL POTENTIAL CONFLICTS WITH THE PROPOSED PIPE. RELOCATE EXISTING UTILITIES WHICH CONFLICT WITH THE

9. ALL PROPOSED UTILITY DEMOLITION WORK SHOWN HEREON SHALL BE COORDINATED WITH THEIR RESPECTIVE UTILITY DRAWINGS BY THE CONTRACTOR TO ELIMINATE ANY CONFLICTS AND PROVIDE SERVICE TO THE NEW AND EXISTING BUILDINGS AS REQUIRED.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND WORKING AROUND EXISTING FIELD CONDITIONS AT NO ADDITIONAL COST AS NON-RELATED CONSTRUCTION ACTIVITIES NOT A PART OF THIS CONTRACT ARE, AND WILL BE, IN PROGRESS.

11. CONTRACTOR SHALL SAWCUT AND REMOVE EXISTING ONSITE AND OFFSITE CONCRETE AND ASPHALT AS REQUIRED TO INSTALL THE PROPOSED UTILITIES. RECONSTRUCT ONSITE AND OFFSITE CONCRETE AND ASPHALT TO MATCH EXISTING WITH A DEPTH OF ONE INCH THICKER THAN EXISTING. COMPLY WITH CITY OF EL MONTE STANDARDS FOR TRENCH BACKFILL AND PAVEMENT REPLACEMENT FOR THE NEW CITY WATER DEPARTMENT WATER IMPROVEMENTS. REPLACE DISTURBED IRRIGATION, LANDSCAPING AND DG WHICH IS TO REMAIN IN PLACE IN THE FUTURE TO A CONDITION EQUAL TO OR BETTER THAN EXISTING. REMOVE CONFLICTING EXISTING TREES AFTER CONFIRMING WITH DISTRICT CONSTRUCTION MANAGER AND ARCHITECT THAT THEY CAN NOT BE SAVED DUE TO FUTURE CONSTRUCTION.

12. NOTE INTENTIONALLY DELETED.

STORM DRAIN IMPROVEMENTS.

13. THE EXACT LOCATION OF THE EXISTING UTILITIES ARE NOT KNOWN AND SHALL BE VERIFIED IN THE FIELD. THE CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF LOCATING AND VERIFYING THE SIZES AND DEPTH OF UNDERGROUND PIPES. 14. LOCATIONS OF EQUIPMENT, PLUMBING FIXTURES, PIPES, ETC. ARE APPROXIMATE AND

15. IF INVERT IS NOT ADEQUATE TO ACCEPT THE NEW SEWER LINE ELEVATIONS SHOWN HEREON, ADVISE THE ARCHITECT AND ENGINEER IMMEDIATELY.

16. UTILITY SERVICES TO ALL POINTS OF THE CAMPUS SHALL BE MAINTAINED AT ALL TIMES UNLESS SPECIFICALLY ALLOWED BY THE SCHOOL DISTRICT REPRESENTATIVE.

17. EXACT ROUTING AND TRENCHING FOR THE PIPES SHALL BE APPROVED BY THE SCHOOL REPRESENTATIVE.

ARE INDICATED FOR REFERENCE ONLY. EXACT LOCATIONS SHALL BE VERIFIED IN THE

8. ALL NECESSARY TRENCHING, CUTTING, BACKFILLING, AND PATCHING IS PART OF THIS SCOPE OF WORK. 9. THE INSTALLATION OF ALL UTILITIES AND EQUIPMENT SHALL CONFORM TO THE

REQUIREMENTS FOR THE PROTECTION OF EXISTING TREES. 20. CONTRACTOR SHALL FLUSH ALL SEWER AND STORM DRAIN PIPE OF ALL SOIL AND

DEBRIS AND PROVIDE A VIDEO AT THE END OF THE JOB AS A RECORD OF THE 1. CONTRACTOR SHALL CONFIRM THE LOCATION, SIZE AND ELEVATION OF EACH UTILITY

AND STORM DRAIN PIPE AT THE SITE OR BUILDING POINT OF CONNECTION PRIOR TO INSTALLING ANY NEW SITE UTILITY OR STORM DRAIN PIPE. 22. IT IS RECOMMENDED THAT THE CONTRACTOR DIG THE NEW UTILITY AND STORM DRAIN PIPE TRENCH AND EXPOSE ALL EXISTING UTILITY AND STORM DRAIN PIPE CONFLICTS

BEFORE INSTALLING ANY NEW UTILITY OR STORM DRAIN PIPE. 23. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE NEW WET AND DRY UTILITY AND STORM DRAIN PIPE SO AS TO NOT HAVE ANY CONFLICT IN THE FIELD. THE LOCATIONS SHOWN ON THE PLANS ARE THE ENGINEER'S BEST ATTEMPT TO PREPARE A MAP SHOWING THE NEW COMPOSITE SEWER, STORM DRAIN, AND WATER IMPROVEMENTS IN RELATION TO THEMSELVES AND THE EXISTING CAMPUS UTILITY AND

24. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICE TO THE EXISTING BUILDINGS BY PERFORMING FIELD INVESTIGATION BOTH INSIDE AND OUTSIDE OF THE BUILDINGS AND INSTALLING THE NECESSARY NEW UTILITY AND STORM DRAIN LINES AS REQUIRED. THE INFORMATION SHOWN ON THESE PLANS IS BASED ON RECORD DRAWINGS AND A SURFACE INVESTIGATION OF THE SITE AND DOES NOT NECESSARILY REPRESENT SUBSURFACE OR HIDDEN AS-BUILT CONDITIONS.

BENCH MARK

B.M. NO. G 4896

DATUM: COUNTY OF LOS ANGELES

FD. L & TK. (TAG GONE) IN LIEU OF DPW BM TAG FITS DESCRIPTION "BM" AT CURB FACE IN EAST CATCH BASIN OF PECK ROAD 1M SOUTH OF BCR, 12.2M EAST OF CENTERLINE & 21M SOUTH OF CENTERLINE OF MEEKER ROAD.

UTILITY CONTACTS

SOUTHERN CALIFORNIA EDISON ALFONZO STUBBS 1000 POTRERO GRANDE DRIVE MONTEREY PARK, CA. 91754 (323) 720-5260

THE GAS COMPANY - NORTHERN REGION EDWARD HALE PLANNING ASSOCIATE 9400 OAKDALE AVENUE, SC9331 CHATSWORTH, CA. 91311-6511

(818) 701-4594 FAX (818) 701-3380 TELEPHONE

ROLAND LEW 8633 GRAND AVENUE BIC ENGINEER ROSEMEAD, CA. 91770-1220 (626) 570-7035 CABLE TELEVISION TIME WARNER CABLE 15255 SALT LAKE AVENUE

JEFF FLACO CONSTRUCTION SUPERVISOR (626) 855-3349

ELEV.=278.369 FEET (1995 ADJUSTMENT)

SANITARY SEWER CITY OF EL MONTE SEWER DEPARTMENT 3527 SANTA ANITA AVENUE EL MONTE, CA. 91731

CARLOS LOPEZ (626) 580-2250 FAX (626) 580-2253

CITY OF EL MONTE WATER DEPARTMENT 3527 SANTA ANITA AVENUE

BRIAN HELLEIN WATER SYSTEMS SUPERVISOR (626) 580-2250 FAX (626) 580-2253 60-70 PSI STATIC PRESSURE FOR THE CITY WATER LINES 60 PSI STATIC PRESSURE AT THE ONSITE PRIVATE 3" BACKFLOW PREVENTER AT SCIENCE BUILDING "G"

CITY OF EL MONTE 3527 SANTA ANITA AVENUE EL MONTE, CA. 91731

STORM DRAIN

INDUSTRY, CA. 91745

DOMESTIC WATER

EL MONTE, CA. 91731

CARLOS LOPEZ (626) 580-2250 FAX (626) 580-2253

| | | | INDEX SHEETS | | | | |
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| | | | 9 | SHEE | T TITLE | | |
| GRADING. | DRAINAGE. | STORM | DRAIN | AND | UTILITY | PLAN | Т |

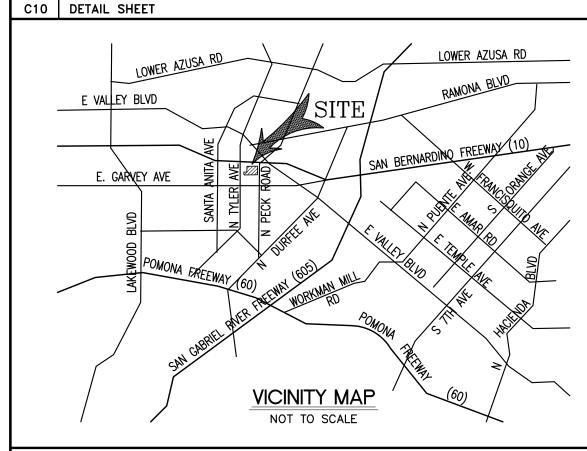
TITLE SHEET C2 DETAIL SHEET

C3 DEMOLITION PLAN C4 GRADING AND DRAINAGE PLAN

C5 | STORM DRAIN AND UTILITY PLAN C6 | EROSION CONTROL PLAN

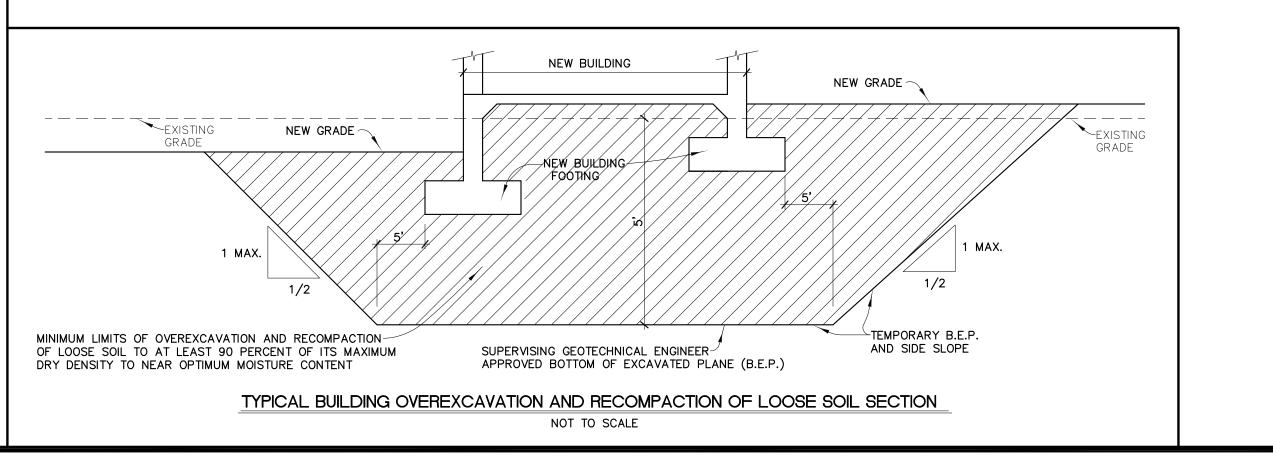
C7 PARTIAL SITE TOPOGRAPHY SURVEY MAP

C8 | DETAIL SHEET C9 DETAIL SHEET



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EX. PUBLIC FH #182 01-21-16 TEST #2 1,380 GPM AT 20 PSI RES. C4, C5, C6 Լբ ,68<u>0 GPM</u> AT 20 PSI RES. APN 8566-006-905 FOR THE NEW BLEACHER BUILDING EXISTING SITE PLAN INDEX MAP Q EXISTING CITY OF EL MONTE WATER DEPARTMENT PUBLIC FIRE HYDRANT SCALE: 1"=200'





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CONSULTANT MSL ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS SPECIALIZING IN SITE DEVELOPMENT 402 W. ARROW HWY, STE, 4 SAN DIMAS, CA. 91773

MARK S. LAMOUREUX (R.C.E. 38382)

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES

| REVISIONS: | | | | | | | |
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| | DESCRIPTION | DATE | | | | | |
| A | Addendum A | 04-05-201 | | | | | |
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05-06-16 DATE ISSUED: PROJECT NO: 2014-40163 As indicated

SHEET NUMBER:

SHEET TITLE:

GRADING, DRAINAGE, STORM **DRAIN AND UTILITY PLAN TITLE SHEET**



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